

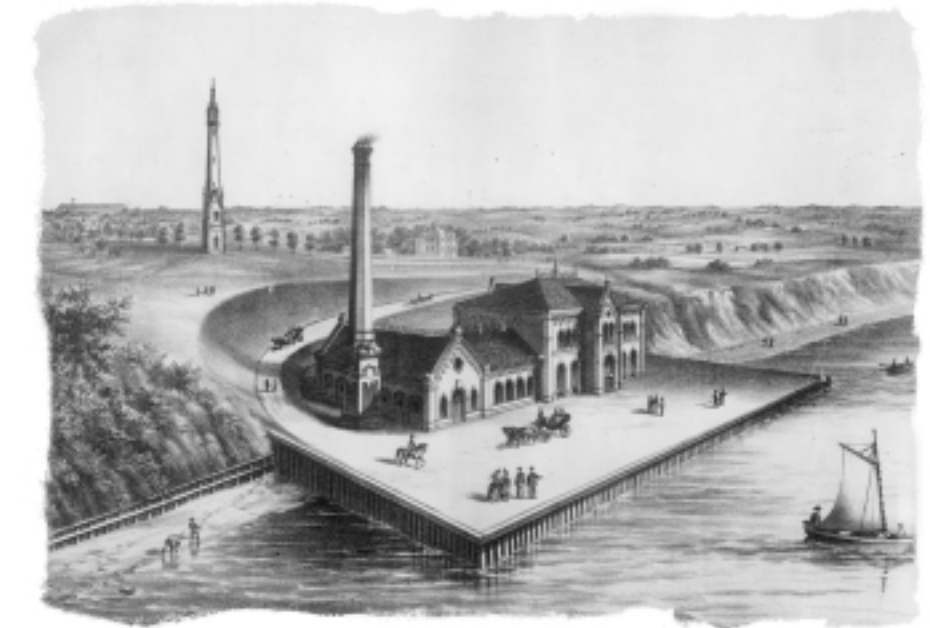
The North Point Water Tower

By Elmer W. Becker

Milwaukee's North Point Water Tower, with its conspicuous location on top of the 80-foot bluff adjacent to the Lake Michigan western shoreline, the beauty of its design and the magnificent view which it commands from the top over land and lake, prompted the City of Milwaukee to retain this structure as an ornament and as a visual landmark to add interest to the City's skyline. By virtue of its appearance and its historical association, it is symbolic of Milwaukee's traditionally bountiful water supply. This structure possesses the integrity of original location, original workmanship, and many intangible elements of feeling and association extending back into the history of the City of Milwaukee.

The Water Tower is a Victorian Gothic design executed in cream colored Wauwatosa cut limestone, its rockfaced walls backed with Milwaukee "Cream City brick" and trimmed with dressed limestone. Its exterior is composed in three stages: the buttressed base, square in plan, measuring some 24 feet by 24 feet by 65 feet high; the slightly tapered cylindrical shaft of the tower; and the observation platform area at the top, with gabled roofs, finials, and a weather vane-crowned octagonal spire. The structure's overall height is 175 feet.

A Gothic arched doorway in the east elevation gives access to a cylindrical compartment 14 feet in



The first Milwaukee Water Works pumping station and the North Point Tower were placed in service in September 1874. The steam-powered station was located on the Lake Michigan shore two-and-a-half miles north of the Milwaukee River harbor. The decorative stonework of the tower housed a tall standpipe, open at the top, that absorbed pulsations of water from the reciprocating steam-driven engines in the pumping station below. The station and the tower served for 50 years as the sole source of lake water into the distribution system.

diameter and 135 feet high. This space contains the wrought iron standpipe, measuring four feet in diameter and 120 feet in height. An iron staircase circles the standpipe and continues beyond it to the observation deck 135 feet above grade. The overall tower sits 255 feet above the lake.

Often praised for its beauty, the structure is a notable local example of the Victorian Gothic style, fanciful and charming. The tower was designed by Charles A. Gombert, architect. John Firlie was the Mason Foreman.

The North Point Water Tower was one of the principal works in

the original water supply system that was capable of supplying Milwaukee with 16 million gallons of water daily, and was constructed at the cost of \$50,892.

Modern pumping equipment no longer requires such a facility and the Water Tower was taken out of service in May 1963. On September 11, 1968, the Milwaukee Landmark Commission designated the water tower as an official landmark of the City of Milwaukee. The tower was awarded a bronze plaque by the American Water Works Association as a

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National Water Works Landmark on May 19, 1969.

In 1969, the North Point Water Tower was selected by the Historic American Building Survey conducted by the National Park Service in collaboration with the American Institute of Architects as an important example of our architectural heritage and in recognition of its value, a record was placed in the Library of Congress.

Residents living in its vicinity are so enamored of the Water Tower they formed a Water Tower Landmark Trust, Inc., “dedicated to the preservation of our unique residential area” and held a recognition ceremony at the Water Tower on October 20, 1973.

On October 24, 1973, the Board of Curators of the Wisconsin State Historical Society, in collaboration with the Milwaukee County Historical Society, approved the designation of the Water Tower as a Wisconsin State Historical Marker which was set in place at the Tower on December 22, 1973.

The Water Tower has always served as a beacon, guiding ships to shore from Lake Michigan; it was floodlighted in 1964 to make it even more useful as a night beacon for all lake shipping.

Elmer Becker was Superintendent of the Milwaukee Water Works, 1964-1972. He worked for the water works for 47 years, serving under five mayors, Daniel W. Hoan, Carl F. Zeidler, John L. Bohn, Frank P. Zeidler, and Henry W. Maier. The text was excerpted from “A Century of Milwaukee Water, An Historical Account of the Origin and Development of the Milwaukee Water Works,” 1974.

Water Pumping in the Age of Steam

By Jim Meyer

The original North Point Pumping Station was the only pumping station that pumped water from Lake Michigan into the water system from 1874 to 1924. The water was not treated or filtered.

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Photo: Robert T. McCoy, Wauwatosa

Construction of new North Point Pumping station underway, Sept. 20, 1962.



Photo: Robert T. McCoy, Wauwatosa

New North Point Pumping station, 1962. Note base of North Point Tower at upper left.

Water Pumping

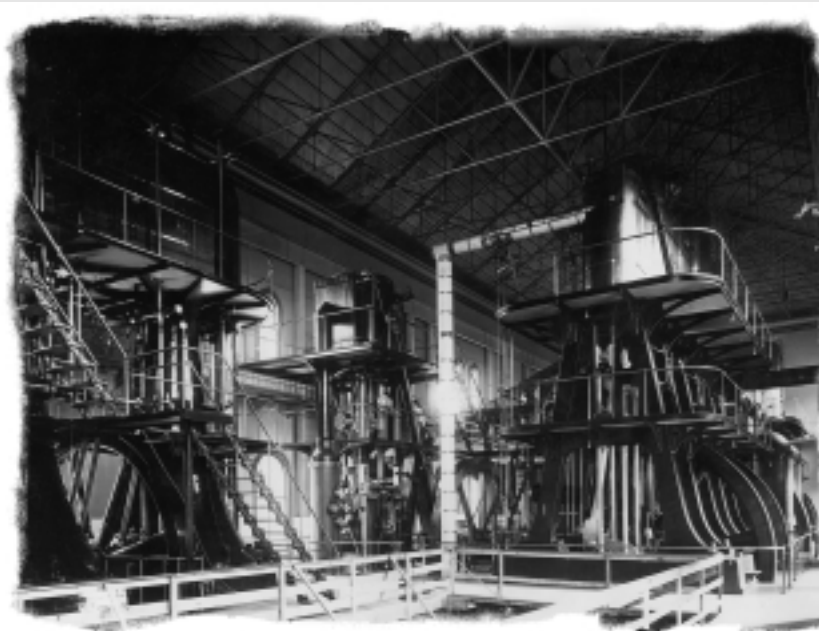
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Early pumping stations had standpipes nearby and were enclosed with decorative stonework which prevented the formation of ice in the standpipe. The tall standpipe, open at the top, absorbed the surges of water from the pulsations of the steam pump plungers. Only one of these is still standing today though it is no longer used — the beautiful North Point Water tower.

By 1877 the expanding city west of 18th Street was experiencing low water pressure due to higher land elevations in those areas. A booster pumping station was built at North 18th and West Juneau Avenue in 1878 and replaced by a larger station at 10th Street and North Avenue in 1887. This station was in service until Riverside Pumping Station replaced it in 1924. Located at the Milwaukee River north of Locust Street, the Riverside Station is supplied by a tunnel from the Linnwood Plant Intake and is still in use, though its steam pumps were replaced by electric pumps in 1968.

During the Age of Steam, steam engines powered everything from locomotives to entire factories. The later versions of steam pumping engines were five stories tall and were called “triple expansion” engines because they contained three cylinders, each one larger than the other.

The steam did not exhaust to the air like locomotives did, and to see 100 tons of machinery performing its work while hearing only the clinking of valves was an impressive experience indeed. Steam pumping engines required oilers and machinists to keep them running, plus more people to operate and maintain boilers, coal handling and ash removing equipment. This was a round-the-clock operation and North Point Station had a staff of about 60 to do all this work.



View of four Allis-Chalmers pumping engines installed in North Point Station, Milwaukee, Wis. 11/30/09.



New pumps at North Point Station, 1964.

By 1960, North Point Station was becoming too costly to operate. The entire station was taken down and replaced by a new building and pumps in 1963.

Jim Meyer was a Milwaukee Water Works Accountant, 1967-2003.

Early history of the Milwaukee Water Works

By Jim Meyer

From a tiny village in 1830, Milwaukee grew to a city of 100,000 people in 1870. But it was a city without a municipal water or sewer system. Shallow wells, springs, streams, and vendors with “water wagons” provided water to residents. Before long, the shallow wells and streams were badly polluted. And, with limited water available for fire protection, any fire had the potential to spread to a large area of the city.

In 1868, Common Council secured the services of E. S. Chesbrough, who had designed the Chicago water system, to do the same for Milwaukee.

Chesbrough considered not only Lake Michigan but also the upper Milwaukee River and inland lakes as possible sources of water. Water from inland sources would flow by gravity into the city, minimizing pumping costs. But these sources were limited, while Lake Michigan contained a seemingly inexhaustible supply of high quality water. So, despite higher pumping costs, Chesbrough chose Lake Michigan as the supply.

A Board of Water Commissioners held its first meeting on April 18, 1871, the official date of organization of the Milwaukee Water Works. The first water works consisted of the North Point pumping station on the lake shore containing two steam pumping engines of eight million gallons per day (MGD) capacity each, a raw water intake, a standpipe — the North Point Tower, the Kilbourn Reservoir and 58 miles of water distribution mains ranging in size from six to 36 inches in diameter.

On September 14th, 1874, the pumps at the North Point pumping station began pumping lake water into the distribution system.

In accordance with a charter provision, the management of the water works was relinquished to a Board of Public Works on July 1, 1875. From then until 1912, the utility was under the direction of the City Engineer, after which time it became a separate division, still headed today by a Superintendent.



Undated



April 2005

Milwaukee Water Works Today

The Milwaukee Water Works is a self-financing enterprise owned by the City of Milwaukee. We serve the residents and businesses of the City of Milwaukee and 14 suburban communities with a user population of 831,000 people. In 2004, the Water Works delivered over 44 billion gallons of pure, clear Lake Michigan water. Our average daily pumpage is 121 million gallons.

We treat Lake Michigan water at two plants, passing the water through multiple barriers of the treatment process, including ozonation, which destroys illness-causing microorganisms, controls taste and odor, and reduces chlorinated disinfection byproducts. Following inactivation of microorganisms, the coagulation, settling and filtration processes remove additional particles.

We maintain 1,954 miles of water distribution mains ranging in size from four inches to 60 inches.

MWW water surpasses all federal and state standards for water quality. Milwaukee’s drinking water has been rated among the highest quality in the nation. In an evaluation of tap water in 101 major U.S. cities, Men’s Health Magazine named Milwaukee one of 12 cities to receive a water quality grade of “A.”

*Carrie M. Lewis, Superintendent
May 2005*